

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/629,782	LOU, HENG	
	Examiner Chirag G. Shah	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 10/14/02.

2.  The allowed claim(s) is/are 1-24.

3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)  All    b)  Some\*    c)  None    of the:

1.  Certified copies of the priority documents have been received.

2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

*ajit Patel*  
**Ajit Patel**  
**Primary Examiner**

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

(a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached  
1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.

(b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of  
Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- 1.  Notice of References Cited (PTO-892)
- 2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
- 4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
- 5.  Notice of Informal Patent Application (PTO-152)
- 6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
- 7.  Examiner's Amendment/Comment
- 8.  Examiner's Statement of Reasons for Allowance
- 9.  Other \_\_\_\_\_.

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with J. Patrick Kendrick on 11/10/05.

The application has been amended as follows:

Claim 1, line 7 after the word, "transmits", "downstream" has been inserted.

Claim 1, line 8-9 after the word, "units", "("downstream transmission")" has been deleted.

Claim 1, line 12 after the word, "transmission", "upstream" has been inserted.

Claim 1, line 13 after the word, "band", "("upstream transmission")" has been deleted.

Claim 10, line 6 after the word, "transmits", "downstream" has been inserted.

Claim 10, line 7 after the word, "units", "("downstream transmission")" has been deleted.

Claim 10, line 11 after the word, "transmission", "upstream" has been inserted.

Claim 10, line 12 after the word, "band", "("upstream transmission")" has been deleted.

Claim 22, line 4, after the word "rate" and before the ";" "wherein, the decoder is a quadrature amplitude modulation (QAM) decoder" has been inserted.

## **REASONS FOR ALLOWANCE**

2. The following is an examiner's statement of reasons for allowance:

Regarding independent claims 1 and 10, Prior Art fails to disclose of transmitting downstream the modulated data over the network in a first frequency band to the selected service units, wherein the encoder is a quadrature amplitude modulation (QAM) encoder and a modulator that modules data using OFDM for transmission upstream to the data head end over the same network in a second frequency band in combination with other limitations set forth in the respective claims.

Regarding independent claim 18, Prior Art fails to disclose of modulating the downstream direction data from the data source with a quadrature amplitude modulation (QAM) modulation technique that produces a downstream transmission with a first rate and modulating data from the service unit with a modulation technique that produces an OFDM upstream transmission with a second data rate in combination with other limitations set forth in the respective claim.

Regarding independent claim 22, Prior Art fails to disclose a decoder that receives downstream data in a first frequency band over the network with a first data rate, wherein, the decoder is a quadrature amplitude modulation (QAM) decoder and a modulator, coupled to the same network, that provides upstream data over the network in a second, different frequency band with a second, different data rate using OFDM in combination with other limitations set forth in the respective claim.

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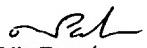
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs  
November 10, 2005

  
Ajit Patel  
Primary Examiner